

## Sequence listing

&lt;110&gt; Pieris Proteolab AG

<120> Soluble truncated polypeptides of the Nogo-A protein,  
methods for the production of such polypeptides and methods for  
identifying compounds having detectable affinity to a Nogo-A  
protein

&lt;160&gt; 18

&lt;210&gt; 1

&lt;211&gt; 1163

&lt;212&gt; PRT

&lt;213&gt; rat

&lt;220&gt;

&lt;223&gt; rat Nogo-A protein

&lt;400&gt; 1

Met	Glu	Asp	Ile	Asp	Gln	Ser	Ser	Leu	Val	Ser	Ser	Ser	Thr	Asp
1				5					10					15

Ser	Pro	Pro	Arg	Pro	Pro	Pro	Ala	Phe	Lys	Tyr	Gln	Phe	Val	Thr
			20						25					30

Glu	Pro	Glu	Asp	Glu	Glu	Asp	Glu	Glu	Glu	Glu	Glu	Asp	Glu	Glu
			35						40					45

Glu	Asp	Asp	Glu	Asp	Leu	Glu	Glu	Leu	Glu	Val	Leu	Glu	Arg	Lys
			50						55					60

Pro	Ala	Ala	Gly	Leu	Ser	Ala	Ala	Ala	Val	Pro	Pro	Ala	Ala	Ala
			65						70					75

Ala	Pro	Leu	Leu	Asp	Phe	Ser	Ser	Asp	Ser	Val	Pro	Pro	Ala	Pro
			80						85					90

Arg	Gly	Pro	Leu	Pro	Ala	Ala	Pro	Pro	Ala	Ala	Pro	Glu	Arg	Gln
			95						100					105

Pro	Ser	Trp	Glu	Arg	Ser	Pro	Ala	Ala	Pro	Ala	Pro	Ser	Leu	Pro
			110						115					120

Pro	Ala	Ala	Ala	Val	Leu	Pro	Ser	Lys	Leu	Pro	Glu	Asp	Asp	Glu
			125						130					135

Pro	Pro	Ala	Arg	Pro	Pro	Pro	Pro	Pro	Pro	Ala	Gly	Ala	Ser	Pro
			140						145					150

Leu	Ala	Glu	Pro	Ala	Ala	Pro	Pro	Ser	Thr	Pro	Ala	Ala	Pro	Lys
			155						160					165

Arg	Arg	Gly	Ser	Gly	Ser	Val	Asp	Glu	Thr	Leu	Phe	Ala	Leu	Pro
			170						175					180

Ala	Ala	Ser	Glu	Pro	Val	Ile	Pro	Ser	Ser	Ala	Glu	Lys	Ile	Met
			185						190					195

Asp	Leu	Met	Glu	Gln	Pro	Gly	Asn	Thr	Val	Ser	Ser	Gly	Gln	Glu
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

				200						205				210
Asp	Phe	Pro	Ser	Val	Leu	Leu	Glu	Thr	Ala	Ala	Ser	Leu	Pro	Ser
				215						220				225
Leu	Ser	Pro	Leu	Ser	Thr	Val	Ser	Phe	Lys	Glu	His	Gly	Tyr	Leu
				230						235				240
Gly	Asn	Leu	Ser	Ala	Val	Ser	Ser	Ser	Glu	Gly	Thr	Ile	Glu	Glu
				245						250				255
Thr	Leu	Asn	Glu	Ala	Ser	Lys	Glu	Leu	Pro	Glu	Arg	Ala	Thr	Asn
				260						265				270
Pro	Phe	Val	Asn	Arg	Asp	Leu	Ala	Glu	Phe	Ser	Glu	Leu	Glu	Tyr
				275						280				285
Ser	Glu	Met	Gly	Ser	Ser	Phe	Lys	Gly	Ser	Pro	Lys	Gly	Glu	Ser
				290						295				310
Ala	Ile	Leu	Val	Glu	Asn	Thr	Lys	Glu	Glu	Val	Ile	Val	Arg	Ser
				305						310				315
Lys	Asp	Lys	Glu	Asp	Leu	Val	Cys	Ser	Ala	Ala	Leu	His	Ser	Pro
				320						325				330
Gln	Glu	Ser	Pro	Val	Gly	Lys	Glu	Asp	Arg	Val	Val	Ser	Pro	Glu
				335						340				345
Lys	Thr	Met	Asp	Ile	Phe	Asn	Glu	Met	Gln	Met	Ser	Val	Val	Ala
				350						355				360
Pro	Val	Arg	Glu	Glu	Tyr	Ala	Asp	Phe	Lys	Pro	Phe	Glu	Gln	Ala
				365						370				375
Trp	Glu	Val	Lys	Asp	Thr	Tyr	Glu	Gly	Ser	Arg	Asp	Val	Leu	Ala
				380						385				390
Ala	Arg	Ala	Asn	Val	Glu	Ser	Lys	Val	Asp	Arg	Lys	Cys	Leu	Glu
				395						400				405
Asp	Ser	Leu	Glu	Gln	Lys	Ser	Leu	Gly	Lys	Asp	Ser	Glu	Gly	Arg
				410						415				420
Asn	Glu	Asp	Ala	Ser	Phe	Pro	Ser	Thr	Pro	Glu	Pro	Val	Lys	Asp
				425						430				435
Ser	Ser	Arg	Ala	Tyr	Ile	Thr	Cys	Ala	Ser	Phe	Thr	Ser	Ala	Thr
				440						445				450
Glu	Ser	Thr	Thr	Ala	Asn	Thr	Phe	Pro	Leu	Leu	Glu	Asp	His	Thr
				455						460				465
Ser	Glu	Asn	Lys	Thr	Asp	Glu	Lys	Lys	Ile	Glu	Glu	Arg	Lys	Ala
				470						475				480
Gln	Ile	Ile	Thr	Glu	Lys	Thr	Ser	Pro	Lys	Thr	Ser	Asn	Pro	Phe
				485						490				495
Leu	Val	Ala	Val	Gln	Asp	Ser	Glu	Ala	Asp	Tyr	Val	Thr	Thr	Asp
				500						505				510
Thr	Leu	Ser	Lys	Val	Thr	Glu	Ala	Ala	Val	Ser	Asn	Met	Pro	Glu

				515					520					525
Gly	Leu	Thr	Pro	Asp	Leu	Val	Gln	Glu	Ala	Cys	Glu	Ser	Glu	Leu
				530					535					540
Asn	Glu	Ala	Thr	Gly	Thr	Lys	Ile	Ala	Tyr	Glu	Thr	Lys	Val	Asp
				545					550					555
Leu	Val	Gln	Thr	Ser	Glu	Ala	Ile	Gln	Glu	Ser	Leu	Tyr	Pro	Thr
				560					565					570
Ala	Gln	Leu	Cys	Pro	Ser	Phe	Glu	Glu	Ala	Glu	Ala	Thr	Pro	Ser
				575					580					585
Pro	Val	Leu	Pro	Asp	Ile	Val	Met	Glu	Ala	Pro	Leu	Asn	Ser	Leu
				590					595					600
Leu	Pro	Ser	Ala	Gly	Ala	Ser	Val	Val	Gln	Pro	Ser	Val	Ser	Pro
				605					610					615
Leu	Glu	Ala	Pro	Pro	Pro	Val	Ser	Tyr	Asp	Ser	Ile	Lys	Leu	Glu
				620					625					630
Pro	Glu	Asn	Pro	Pro	Pro	Tyr	Glu	Glu	Ala	Met	Asn	Val	Ala	Leu
				635					640					645
Lys	Ala	Leu	Gly	Thr	Lys	Glu	Gly	Ile	Lys	Glu	Pro	Glu	Ser	Phe
				650					655					660
Asn	Ala	Ala	Val	Gln	Glu	Thr	Glu	Ala	Pro	Tyr	Ile	Ser	Ile	Ala
				665					670					675
Cys	Asp	Leu	Ile	Lys	Glu	Thr	Lys	Leu	Ser	Thr	Glu	Pro	Ser	Pro
				680					685					690
Asp	Phe	Ser	Asn	Tyr	Ser	Glu	Ile	Ala	Lys	Phe	Glu	Lys	Ser	Val
				695					700					705
Pro	Glu	His	Ala	Glu	Leu	Val	Glu	Asp	Ser	Ser	Pro	Glu	Ser	Glu
				710					715					720
Pro	Val	Asp	Leu	Phe	Ser	Asp	Asp	Ser	Ile	Pro	Glu	Val	Pro	Gln
				725					730					735
Thr	Gln	Glu	Glu	Ala	Val	Met	Leu	Met	Lys	Glu	Ser	Leu	Thr	Glu
				740					745					750
Val	Ser	Glu	Thr	Val	Ala	Gln	His	Lys	Glu	Glu	Arg	Leu	Ser	Ala
				755					760					765
Ser	Pro	Gln	Glu	Leu	Gly	Lys	Pro	Tyr	Leu	Glu	Ser	Phe	Gln	Pro
				770					775					780
Asn	Leu	His	Ser	Thr	Lys	Asp	Ala	Ala	Ser	Asn	Asp	Ile	Pro	Thr
				785					790					795
Leu	Thr	Lys	Lys	Glu	Lys	Ile	Ser	Leu	Gln	Met	Glu	Glu	Phe	Asn
				800					805					810
Thr	Ala	Ile	Tyr	Ser	Asn	Asp	Asp	Leu	Leu	Ser	Ser	Lys	Glu	Asp
				815					820					825
Lys	Ile	Lys	Glu	Ser	Glu	Thr	Phe	Ser	Asp	Ser	Ser	Pro	Ile	Glu

830					835					840				
Ile	Ile	Asp	Glu	Phe	Pro	Thr	Phe	Val	Ser	Ala	Lys	Asp	Asp	Ser
				845					850					855
Pro	Lys	Leu	Ala	Lys	Glu	Tyr	Thr	Asp	Leu	Glu	Val	Ser	Asp	Lys
				860					865					870
Ser	Glu	Ile	Ala	Asn	Ile	Gln	Ser	Gly	Ala	Asp	Ser	Leu	Pro	Cys
				875					880					885
Leu	Glu	Leu	Pro	Cys	Asp	Leu	Ser	Phe	Lys	Asn	Ile	Tyr	Pro	Lys
				890					895					900
Asp	Glu	Val	His	Val	Ser	Asp	Glu	Phe	Ser	Glu	Asn	Arg	Ser	Ser
				905					910					915
Val	Ser	Lys	Ala	Ser	Ile	Ser	Pro	Ser	Asn	Val	Ser	Ala	Leu	Glu
				920					925					930
Pro	Gln	Thr	Glu	Met	Gly	Ser	Ile	Val	Lys	Ser	Lys	Ser	Leu	Thr
				935					940					945
Lys	Glu	Ala	Glu	Lys	Lys	Leu	Pro	Ser	Asp	Thr	Glu	Lys	Glu	Asp
				950					955					960
Arg	Ser	Leu	Ser	Ala	Val	Leu	Ser	Ala	Glu	Leu	Ser	Lys	Thr	Ser
				965					970					975
Val	Val	Asp	Leu	Leu	Tyr	Trp	Arg	Asp	Ile	Lys	Lys	Thr	Gly	Val
				980					985					990
Val	Phe	Gly	Ala	Ser	Leu	Phe	Leu	Leu	Leu	Ser	Leu	Thr	Val	Phe
				995					1000					1005
Ser	Ile	Val	Ser	Val	Thr	Ala	Tyr	Ile	Ala	Leu	Ala	Leu	Leu	Ser
				1010					1015					1020
Val	Thr	Ile	Ser	Phe	Arg	Ile	Tyr	Lys	Gly	Val	Ile	Gln	Ala	Ile
				1030					1030					1035
Gln	Lys	Ser	Asp	Glu	Gly	His	Pro	Phe	Arg	Ala	Tyr	Leu	Glu	Ser
				1040					1045					1050
Glu	Val	Ala	Ile	Ser	Glu	Glu	Leu	Val	Gln	Lys	Tyr	Ser	Asn	Ser
				1055					1060					1065
Ala	Leu	Gly	His	Val	Asn	Ser	Thr	Ile	Lys	Glu	Leu	Arg	Arg	Leu
				1070					1075					1080
Phe	Leu	Val	Asp	Asp	Leu	Val	Asp	Ser	Leu	Lys	Phe	Ala	Val	Leu
				1085					1090					1095
Met	Trp	Val	Phe	Thr	Tyr	Val	Gly	Ala	Leu	Phe	Asn	Gly	Leu	Thr
				1100					1105					1110
Leu	Leu	Ile	Leu	Ala	Leu	Ile	Ser	Leu	Phe	Ser	Ile	Pro	Val	Ile
				1115					1120					1125
Tyr	Glu	Arg	His	Gln	Val	Gln	Ile	Asp	His	Tyr	Leu	Gly	Leu	Ala
				1130					1135					1140
Asn	Lys	Ser	Val	Lys	Asp	Ala	Met	Ala	Lys	Ile	Gln	Ala	Lys	Ile

1145

1150

1155

Pro Gly Leu Lys Arg Lys Ala Asp  
1160

&lt;210&gt; 2

&lt;211&gt; 1192

&lt;212&gt; PRT

&lt;213&gt; human

&lt;220&gt;

&lt;223&gt; human Nogo-A protein

&lt;400&gt; 2

Met	Glu	Asp	Leu	Asp	Gln	Ser	Pro	Leu	Val	Ser	Ser	Ser	Asp	Ser	1	5	10	15
Pro	Pro	Arg	Pro	Gln	Pro	Ala	Phe	Arg	Tyr	Gln	Phe	Val	Arg	Glu	20	25	30	
Pro	Glu	Asp	Glu	Glu	Glu	Glu	Glu	Glu	Glu	Glu	Glu	Glu	Asp	Glu	35	40	45	
Asp	Glu	Asp	Leu	Glu	Glu	Leu	Glu	Val	Leu	Glu	Arg	Lys	Pro	Ala	50	55	60	
Ala	Gly	Leu	Ser	Ala	Ala	Pro	Val	Pro	Thr	Ala	Pro	Ala	Ala	Gly	65	70	75	
Ala	Pro	Leu	Met	Asp	Phe	Gly	Asn	Glu	Phe	Val	Pro	Pro	Ala	Pro	80	85	90	
Arg	Gly	Pro	Leu	Pro	Ala	Ala	Pro	Pro	Val	Ala	Pro	Glu	Arg	Gln	95	100	105	
Pro	Ser	Trp	Asp	Pro	Ser	Pro	Val	Ser	Ser	Thr	Val	Pro	Ala	Pro	110	115	120	
Ser	Pro	Leu	Ser	Ala	Ala	Ala	Val	Ser	Pro	Ser	Lys	Leu	Pro	Glu	125	130	135	
Asp	Asp	Glu	Pro	Pro	Ala	Arg	Pro	Pro	Pro	Pro	Pro	Pro	Ala	Ser	140	145	150	
Val	Ser	Pro	Gln	Ala	Glu	Pro	Val	Trp	Thr	Pro	Pro	Ala	Pro	Ala	155	160	165	
Pro	Ala	Ala	Pro	Pro	Ser	Thr	Pro	Ala	Ala	Pro	Lys	Arg	Arg	Gly	170	185	180	
Ser	Ser	Gly	Ser	Val	Asp	Glu	Thr	Leu	Phe	Ala	Leu	Pro	Ala	Ala	185	190	195	
Ser	Glu	Pro	Val	Ile	Arg	Ser	Ser	Ala	Glu	Asn	Met	Glu	Leu	Lys	200	205	210	
Glu	Gln	Pro	Gly	Asn	Thr	Ile	Ser	Ala	Gly	Gln	Glu	Asp	Phe	Pro	215	220	225	
Ser	Val	Leu	Leu	Glu	Thr	Ala	Ala	Ser	Leu	Pro	Ser	Leu	Ser	Pro				

				230					235					240
Leu	Ser	Ala	Ala	Ser 245	Phe	Lys	Glu	His	Glu 250	Tyr	Leu	Glu	Asn	Leu 255
Ser	Thr	Val	Leu	Pro 260	Thr	Glu	Gly	Thr	Leu 265	Gln	Glu	Asn	Val	Ser 270
Glu	Ala	Ser	Lys	Glu 275	Val	Ser	Glu	Lys	Ala 280	Lys	Thr	Leu	Leu	Ile 285
Asp	Arg	Asp	Leu	Thr 290	Glu	Phe	Ser	Glu	Leu 295	Glu	Tyr	Ser	Glu	Met 300
Gly	Ser	Ser	Phe	Ser 305	Val	Ser	Pro	Lys	Ala 310	Glu	Ser	Ala	Val	Ile 315
Val	Ala	Asn	Pro	Arg 320	Glu	Glu	Ile	Ile	Val 325	Lys	Asn	Lys	Asp	Glu 330
Glu	Glu	Lys	Leu	Val 335	Ser	Asn	Ans	Ile	Leu 340	His	Asn	Gln	Gln	Glu 345
Leu	Pro	Thr	Ala	Leu 350	Thr	Lys	Leu	Val	Lys 355	Glu	Asp	Glu	Val	Val 360
Ser	Ser	Glu	Lys	Ala 365	Lys	Asp	Ser	Phe	Asn 370	Glu	Lys	Arg	Val	Ala 385
Val	Glu	Ala	Pro	Met 380	Arg	Glu	Glu	Tyr	Ala 385	Asp	Phe	Lys	Pro	Phe 390
Glu	Arg	Val	Trp	Glu 395	Val	Lys	Asp	Ser	Lys 400	Glu	Asp	Ser	Asp	Met 405
Leu	Ala	Ala	Gly	Gly 410	Lys	Ile	Glu	Ser	Asn 415	Leu	Glu	Ser	Lys	Val 420
Asp	Lys	Lys	Cys	Phe 425	Ala	Asp	Ser	Leu	Glu 430	Gln	Thr	Asn	His	Glu 435
Lys	Asn	Ser	Glu	Ser 440	Ser	Asn	Asp	Asp	Thr 445	Ser	Phe	Pro	Ser	Thr 450
Pro	Glu	Gly	Ile	Lys 455	Asp	Arg	Pro	Gly	Ala 460	Tyr	Ile	Thr	Cys	Ala 465
Pro	Phe	Asn	Pro	Ala 470	Ala	Thr	Glu	Ser	Ile 475	Ala	Thr	Asn	Ile	Phe 480
Pro	Leu	Leu	Gly	Asp 485	Pro	Thr	Ser	Glu	Asn 490	Lys	Thr	Asp	Glu	Lys 495
Lys	Ile	Glu	Glu	Lys 500	Lys	Ala	Gln	Ile	Val 505	Thr	Glu	Lys	Asn	Thr 510
Ser	Thr	Lys	Thr	Ser 515	Asn	Pro	Phe	Leu	Val 520	Ala	Ala	Gln	Glu	Ser 525
Glu	Thr	Asp	Tyr	Val 530	Thr	Thr	Asp	Asn	Leu 535	Thr	Lys	Val	Thr	Glu 540
Glu	Val	Val	Ala	Asn	Met	Pro	Glu	Gly	Leu	Thr	Pro	Asp	Leu	Val

				545					550					555
Gln	Glu	Ala	Cys	Glu	Ser	Glu	Leu	Asn	Glu	Val	Thr	Gly	Thr	Lys
				560					565					570
Ile	Ala	Tyr	Glu	Thr	Lys	Met	Asp	Leu	Val	Gln	Thr	Ser	Glu	Val
				575					580					585
Met	Gln	Glu	Ser	Leu	Tyr	Pro	Ala	Ala	Gln	Leu	Cys	Pro	Ser	Phe
				590					595					600
Glu	Glu	Ser	Glu	Ala	Thr	Pro	Ser	Pro	Val	Leu	Pro	Asp	Ile	Val
				605					610					615
Met	Glu	Ala	Pro	Leu	Asn	Ser	Ala	Val	Pro	Ser	Ala	Gly	Ala	Ser
				620					625					630
Val	Ile	Gln	Pro	Ser	Ser	Ser	Pro	Leu	Glu	Ala	Ser	Ser	Val	Gln
				635					640					645
Tyr	Glu	Ser	Ile	Lys	His	Glu	Pro	Glu	Asn	Pro	Pro	Pro	Tyr	Glu
				650					655					660
Glu	Ala	Met	Ser	Val	Ser	Leu	Lys	Lys	Val	Ser	Gly	Ile	Lys	Glu
				665					670					675
Glu	Ile	Lys	Glu	Pro	Glu	Asn	Ile	Asn	Ala	Ala	Leu	Gln	Glu	Thr
				680					685					690
Glu	Ala	Pro	Tyr	Ile	Ser	Ile	Ala	Cys	Asp	Leu	Ile	Lys	Glu	Thr
				695					700					705
Lys	Leu	Ser	Ala	Glu	Pro	Ala	Pro	Glu	Phe	Ser	Asp	Tyr	Ser	Glu
				710					715					720
Met	Ala	Lys	Val	Glu	Gln	Pro	Val	Pro	Asp	His	Ser	Glu	Leu	Val
				725					730					735
Glu	Asp	Ser	Ser	Pro	Asp	Ser	Glu	Pro	Val	Asp	Leu	Phe	Ser	Asp
				740					745					750
Asp	Ser	Ile	Pro	Asp	Val	Pro	Gln	Lys	Gln	Asp	Glu	Thr	Val	Met
				755					760					765
Leu	Val	Lys	Glu	Ser	Leu	Thr	Glu	Thr	Ser	Phe	Glu	Ser	Met	Ile
				770					775					780
Glu	Tyr	Glu	Gln	Lys	Glu	Lys	Leu	Ser	Ala	Leu	Pro	Pro	Glu	Gly
				785					790					795
Gly	Lys	Pro	Tyr	Leu	Glu	Ser	Phe	Lys	Leu	Ser	Leu	Asp	Asn	Thr
				800					805					810
Lys	Asp	Thr	Leu	Leu	Pro	Asp	Glu	Val	Ser	Thr	Leu	Ser	Lys	Lys
				815					820					825
Glu	Lys	Ile	Pro	Ile	Gln	Met	Glu	Glu	Leu	Ser	Thr	Ala	Val	Tyr
				830					835					840
Ser	Asn	Asp	Asp	Leu	Phe	Ile	Ser	Lys	Glu	Ala	Gln	Ile	Arg	Glu
				845					850					855
Thr	Glu	Thr	Phe	Ser	Asp	Ser	Ser	Pro	Ile	Glu	Ile	Ile	Asp	Glu

	860		865		870
Phe Pro Thr Leu	Ile Ser Ser Lys Thr	Asp Ser Phe Ser Lys Leu			
	875	880			885
Ala Arg Glu Tyr	Thr Asp Leu Glu Val	Ser His Lys Ser Glu Ile			
	890	895			900
Ala Gln Ala Pro	Asp Gly Ala Gly Ser	Leu Pro Cys Thr Glu Leu			
	905	910			915
Pro His Asp Leu	Ser Leu Lys Asn Ile	Gln Pro Lys Val Glu Glu			
	920	925			930
Lys Ile Ser Phe	Ser Asp Asp Phe Ser	Lys Asn Gly Ser Ala Thr			
	935	940			945
Ser Lys Val Leu	Leu Leu Pro Pro Asp	Val Ser Ala Leu Ala Thr			
	950	955			960
Gln Ala Glu Ile	Glu Ser Ile Val Lys	Pro Lys Val Leu Val Lys			
	965	970			975
Glu Ala Glu Lys	Lys Leu Pro Ser Asp	Thr Glu Lys Glu Asp Arg			
	980	985			990
Ser Pro Ser Ala	Ile Phe Ser Ala Glu	Leu Ser Lys Thr Ser Val			
	995	1000			1005
Val Asp Leu Leu	Tyr Trp Arg Asp Ile	Lys Lys Thr Gly Val Val			
	1010	1015			1020
Phe Gly Ala Ser	Leu Phe Leu Leu Leu	Ser Leu Thr Val Phe Ser			
	1025	1030			1035
Ile Val Ser Val	Thr Ala Tyr Ile Ala	Leu Ala Leu Leu Ser Val			
	1040	1045			1050
Thr Ile Ser Phe	Arg Ile Tyr Lys Gly	Val Ile Gln Ala Ile Gln			
	1055	1060			1065
Lys Ser Asp Glu	Gly His Pro Phe Arg	Ala Tyr Leu Glu Ser Glu			
	1070	1075			1080
Val Ala Ile Ser	Glu Glu Leu Val Gln	Lys Tyr Ser Asn Ser Ala			
	1085	1090			1095
Leu Gly His Val	Asn Cys Thr Ile Lys	Glu Leu Arg Arg Leu Phe			
	1100	1105			1110
Leu Val Asp Asp	Leu Val Asp Ser Leu	Lys Phe Ala Val Leu Met			
	1115	1120			1125
Trp Val Phe Thr	Tyr Val Gly Ala Leu	Phe Asn Gly Leu Thr Leu			
	1130	1135			1140
Leu Ile Leu Ala	Leu Ile Ser Leu Phe	Ser Val Pro Val Ile Tyr			
	1145	1150			1155
Glu Arg His Gln	Ala Gln Ile Asp His	Tyr Leu Gly Leu Ala Asn			
	1160	1165			1170
Lys Asn Val Lys	Asp Ala Met Ala Lys	Ile Gln Ala Lys Ile Pro			



1175

1180

1185

Gly Leu Lys Arg Lys Ala Glu  
1190

<210> 3  
<211> 33  
<212> DNA  
<213> artificial sequence

<220>  
<223> Primer

<400> 3

gctcagcggc cgagaccctt tttgctcttc ctg

33

<210> 4  
<211> 27  
<212> DNA  
<213> artificial sequence

<220>  
<223> Primer

<400> 4

gcttttaact atgctgocca tttctgt

27

<210> 5  
<211> 40  
<212> DNA  
<213> artificial sequence

<220>  
<223> Primer

<400> 5

ggtatccatg ttctttaaaa gaggcctgcg ctacggtagc

40

<210> 6  
<211> 63  
<212> DNA  
<213> artificial sequence

<220>  
<223> Primer

<400> 6

cacttcacag gtcaagctta ttaatgggtga tggatgatggt gagcgctttt  
aactatgctg ccc

50  
63

<210> 7  
<211> 42  
<212> DNA  
<213> artificial sequence

<220>  
<223> Primer

<400> 7

ggtatccatg ttctttaaaa gaggcgccct gcgctacggt agc 42

<210> 8  
<211> 39  
<212> DNA  
<213> artificial sequence

<220>  
<221> misc\_feature  
<222> (34)  
<223> k: g or t

<220>  
<223> Primer

<400> 8

gacattgagc tcacccagtc tccagcaatc atgkctgc 39

<210> 9  
<211> 66  
<212> DNA  
<213> artificial sequence

<220>  
<221> misc\_feature  
<222> (37) ... (39)  
<223> n: a, g, c or t; m: a or c

<220>  
<221> misc\_feature  
<222> (43) ... (48)

<223> n: a, g, c or t; m: a or c

<220>  
<223> Primer

<400> 9

gcgcttcagc tcgagcttgg tcccagctcc gaacgtmna ggmnnmnta 50  
acacattttg acagta 66

<210> 10  
<211> 74  
<212> DNA  
<213> artificial sequence

<220>  
<221> misc\_feature  
<222> (49) ... (54)  
<223> n: a, g, c or t; m: a or c

<220>  
<223> Primer

<400> 10

gcgcttcagc tgcagcttgg tcccagctcc gaacgtaacc ggcacccgmn 50  
nmnnattttg acagtaatac gttgc 74

<210> 11  
<211> 121  
<212> PRT  
<213> mouse

<220>  
<221>  
<222> (1)...(121)  
<223> variable domain of the heavy chain of antibody IN-1  
  
<400> 11

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Thr	Ser	Val	Lys	Ile	Ser	Cys	Lys	Ala	Ser	Gly	Tyr	Thr	Phe	Thr	
				20					25					30	
Asn	Tyr	Trp	Leu	Gly	Trp	Val	Lys	Gln	Arg	Pro	Gly	His	Gly	Leu	
				35					40					45	
Glu	Trp	Ile	Gly	Asp	Ile	Tyr	Pro	Gly	Gly	Gly	Tyr	Thr	Asn	Tyr	
				50					55					60	
Asn	Glu	Lys	Phe	Lys	Gly	Lys	Ala	Thr	Leu	Thr	Ala	Asp	Thr	Ser	
				65					70					75	
Ser	Ser	Thr	Ala	Tyr	Met	Gln	Leu	Ser	Ser	Leu	Thr	Ser	Glu	Asp	
				80					85					90	
Ser	Ala	Val	Tyr	Phe	Cys	Ala	Arg	Phe	Tyr	Tyr	Gly	Ser	Ser	Tyr	
				95					100					105	
Trp	Tyr	Phe	Asp	Val	Trp	Gly	Gln	Gly	Thr	Thr	Val	Thr	Val	Ser	
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Ser

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<223> variable domain of the light chain of the antibody II.1.8

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Gly Glu Thr Val Thr Ile Thr Cys Gly Ala Ser Glu Asn Ile Tyr
             20             25             30
Gly Ala Leu Asn Trp Tyr Gln Arg Lys Gln Gly Lys Ser Pro Gln
             35             40             45
Leu Leu Ile Tyr Gly Ala Thr Asn Leu Ala Asp Gly Met Ser Ser
             50             55             60
Arg Phe Ser Gly Ser Gly Ser Gly Arg Gln Tyr Ser Leu Lys Ile
             65             70             75
Ser Ser Leu His Pro Asp Asp Val Ala Thr Tyr Tyr Cys Gln Asn
             80             85             90
Ile Asn Arg Val Pro Val Thr Phe Gly Ala Gly Thr Lys Leu Glu
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Ile Lys

<210> 13

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<222> (85)...(2238)

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<220>

<221> CDS

<222> (85)...(2208)

<223> mature truncated Nogo-A

<220>

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<222> (2209)...(2238)

<223> Strep-tag II affinity tag

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45

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Ala Val Ala Leu Ala Gly Phe Ala Thr Val Ala Gln Ala Ser Phe
                -10                                -5                                -1    1

aaa gaa cat gga tac ctt ggt aac tta tca gca gtg tca tcc tca 135
Lys Glu His Gly Tyr Leu Gly Asn Leu Ser Ala Val Ser Ser Ser
                5                                10                                15

gaa gga aca att gaa gaa act tta aat gaa gct tct aaa gag ttg 180
Glu Gly Thr Ile Glu Glu Thr Leu Asn Glu Ala Ser Lys Glu Leu
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cca gag agg gca aca aat cca ttt gta aat aga gat tta gca gaa 225
Pro Glu Arg Ala Thr Asn Pro Phe Val Asn Arg Asp Leu Ala Glu
                35                                40                                45

ttt tca gaa tta gaa tat tca gaa atg gga tca tct ttt aaa ggc 270
Phe Ser Glu Leu Glu Tyr Ser Glu Met Gly Ser Ser Phe Lys Gly
                50                                55                                60

tcc cca aaa gga gag tca gcc ata tta gta gaa aac act aag gaa 315
Ser Pro Lys Gly Glu Ser Ala Ile Leu Val Glu Asn Thr Lys Glu
                65                                70                                75

gaa gta att gtg agg agt aaa gac aaa gag gat tta gtt tgt agt 360
Glu Val Ile Val Arg Ser Lys Asp Lys Glu Asp Leu Val Cys Ser
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gca gcc ctt cac agt cca caa gaa tca cct gtg ggt aaa gaa gac 405
Ala Ala Leu His Ser Pro Gln Glu Ser Pro Val Gly Lys Glu Asp
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aga gtt gtg tct cca gaa aag aca atg gac att ttt aat gaa atg 450
Arg Val Val Ser Pro Glu Lys Thr Met Asp Ile Phe Asn Glu Met
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cag atg tca gta gta gca cct gtg agg gaa gag tat gca gac ttt 495
Gln Met Ser Val Val Ala Pro Val Arg Glu Glu Tyr Ala Asp Phe
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aag cca ttt gaa caa gca tgg gaa gtg aaa gat act tat gag gga 540
Lys Pro Phe Glu Gln Ala Trp Glu Val Lys Asp Thr Tyr Glu Gly
                140                                145                                150

agt agg gat gtg ctg gct gct aga gct aat gtg gaa agt aaa gtg 585
Ser Arg Asp Val Leu Ala Ala Arg Ala Asn Val Glu Ser Lys Val
                155                                160                                165

gac aga aaa tgc ttg gaa gat agc ctg gag caa aaa agt ctt ggg 630
Asp Arg Lys Cys Leu Glu Asp Ser Leu Glu Gln Lys Ser Leu Gly
                170                                175                                180

aag gat agt gaa ggc aga aat gag gat gct tct ttc ccc agt acc 675
Lys Asp Ser Glu Gly Arg Asn Glu Asp Ala Ser Phe Pro Ser Thr
                185                                190                                195

cca gaa cct gtg aag gac agc tcc aga gca tat att acc tgt gct 720
Pro Glu Pro Val Lys Asp Ser Ser Arg Ala Tyr Ile Thr Cys Ala
                200                                205                                210

tcc ttt acc tca gca acc gaa agc acc aca gca aac act ttc cct 765

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Leu	Leu	Glu	Asp	His	Thr	Ser	Glu	Asn	Lys	Thr	Asp	Glu	Lys	Lys			
		230						235					240				
ata	gaa	gaa	agg	aag	gcc	caa	att	ata	aca	gag	aag	act	agc	ccc	855		
Ile	Glu	Glu	Arg	Lys	Ala	Gln	Ile	Ile	Thr	Glu	Lys	Thr	Ser	Pro			
		245						250					255				
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Lys	Thr	Ser	Asn	Pro	Phe	Leu	Val	Ala	Val	Gln	Asp	Ser	Glu	Ala			
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gat	tat	gtt	aca	aca	gat	acc	tta	tca	aag	gtg	act	gag	gca	gca	945		
Asp	Tyr	Val	Thr	Thr	Asp	Thr	Leu	Ser	Lys	Val	Thr	Glu	Ala	Ala			
		275						280					285				
gtg	tca	aac	atg	cct	gaa	ggc	ctg	acg	cca	gat	tta	gtt	cag	gaa	990		
Val	Ser	Asn	Met	Pro	Glu	Gly	Leu	Thr	Pro	Asp	Leu	Val	Gln	Glu			
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Ala	Cys	Glu	Ser	Glu	Leu	Asn	Glu	Ala	Thr	Gly	Thr	Lys	Ile	Ala			
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tat	gaa	aca	aaa	gtg	gac	ttg	gtc	caa	aca	tca	gaa	gct	ata	caa	1080		
Tyr	Glu	Thr	Lys	Val	Asp	Leu	Val	Gln	Thr	Ser	Glu	Ala	Ile	Gln			
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gaa	tca	ctt	tac	ccc	aca	gca	cag	ctt	tgc	cca	tca	ttt	gag	gaa	1125		
Glu	Ser	Leu	Tyr	Pro	Thr	Ala	Gln	Leu	Cys	Pro	Ser	Phe	Glu	Glu			
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gct	gaa	gca	act	ccg	tca	cca	gtt	ttg	cct	gat	att	gtt	atg	gaa	1170		
Ala	Glu	Ala	Thr	Pro	Ser	Pro	Val	Leu	Pro	Asp	Ile	Val	Met	Glu			
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Ala	Pro	Leu	Asn	Ser	Leu	Leu	Pro	Ser	Ala	Gly	Ala	Ser	Val	Val			
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Gln	Pro	Ser	Val	Ser	Pro	Leu	Glu	Ala	Pro	Pro	Pro	Val	Ser	Tyr			
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gac	agt	ata	aag	ctt	gag	cct	gaa	aac	ccc	cca	cca	tat	gaa	gaa	1305		
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Ala	Met	Asn	Val	Ala	Leu	Lys	Ala	Leu	Gly	Thr	Lys	Glu	Gly	Ile			
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Lys	Glu	Pro	Glu	Ser	Phe	Asn	Ala	Ala	Val	Gln	Glu	Thr	Glu	Ala			
		425						430					435				
cct	tat	ata	tcc	att	gcg	tgt	gat	tta	att	aaa	gaa	aca	aag	ctc	1440		
Pro	Tyr	Ile	Ser	Ile	Ala	Cys	Asp	Leu	Ile	Lys	Glu	Thr	Lys	Leu			
		440						445					450				

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455 460 465	
aaa ttc gag aag tcg gtg ccc gaa cac gct gag cta gtg gag gat	1530
Lys Phe Glu Lys Ser Val Pro Glu His Ala Glu Leu Val Glu Asp	
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Ser Ser Pro Glu Ser Glu Pro Val Asp Leu Phe Ser Asp Asp Ser	
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att cct gaa gtc cca caa aca caa gag gag gct gtg atg ctc atg	1620
Ile Pro Glu Val Pro Gln Thr Gln Glu Glu Ala Val Met Leu Met	
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aag gag agt ctc act gaa gtg tct gag aca gta gcc cag cac aaa	1665
Lys Glu Ser Leu Thr Glu Val Ser Glu Thr Val Ala Gln His Lys	
515 520 525	
gag gag aga ctt agt gcc tca cct cag gag cta gga aag cca tat	1710
Glu Glu Arg Leu Ser Ala Ser Pro Gln Glu Leu Gly Lys Pro Tyr	
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Ser Asn Asp Ile Pro Thr Leu Thr Lys Lys Glu Lys Ile Ser Leu	
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Gln Met Glu Glu Phe Asn Thr Ala Ile Tyr Ser Asn Asp Asp Leu	
575 580 585	
ctt tct tct aag gaa gac aaa ata aaa gaa agt gaa aca ttt tca	1890
Leu Ser Ser Lys Glu Asp Lys Ile Lys Glu Ser Glu Thr Phe Ser	
590 595 600	
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Asp Ser Ser Pro Ile Glu Ile Ile Asp Glu Phe Pro Thr Phe Val	
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Ser Ala Lys Asp Asp Ser Pro Lys Leu Ala Lys Glu Tyr Thr Asp	
620 625 630	
cta gaa gta tcc gac aaa agt gaa att gct aat atc caa agc ggg	2025
Leu Glu Val Ser Asp Lys Ser Glu Ile Ala Asn Ile Gln Ser Gly	
635 640 645	
gca gat tca ttg cct tgc tta gaa ttg ccc tgt gac ctt tct ttc	2070
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Ser Glu Asn Arg Ser Ser Val Ser Lys Ala Ser Ile Ser Pro Ser	
680 685 690	

aat gtc tct gct ttg gaa cct cag aca gaa atg ggc agc ata gtt 2205  
 Asn Val Ser Ala Leu Glu Pro Gln Thr Glu Met Gly Ser Ile Val  
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aaa agc gct tgg cgt cac ccg cag ttc ggt ggt taa taa gctt 2248  
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gct ctt cct gct gca tct gag cct gtg ata ccc tcc tct gca gaa 135  
 Ala Leu Pro Ala Ala Ser Glu Pro Val Ile Pro Ser Ser Ala Glu  
                               5                              10                              15

ctt ttt aaa att atg gat ttg atg gag cag cca ggt aac act gtt 225  
 Leu Phe Lys Ile Met Asp Leu Met Glu Gln Pro Gly Asn Thr Val  
                               20                              25                              30

tcg tct ggt caa gag gat ttc cca tct gtc ctg ctt gaa act gct 270  
 Ser Ser Gly Gln Glu Asp Phe Pro Ser Val Leu Leu Glu Thr Ala  
                               35                              40                              45

gcc tct ctt cct tct cta tct cct ctc tca act gtt tct ttt aaa 315  
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65	70	75	
gga aca att gaa gaa act tta aat gaa gct tct aaa gag ttg cca 405			
Gly Thr Ile Glu Glu Thr Leu Asn Glu Ala Ser Lys Glu Leu Pro			
80	85	90	
gag agg gca aca aat cca ttt gta aat aga gat tta gca gaa ttt 450			
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95	100	105	
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Pro Lys Gly Glu Ser Ala Ile Leu Val Glu Asn Thr Lys Glu Glu			
125	130	135	
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Val Ile Val Arg Ser Lys Asp Lys Glu Asp Leu Val Cys Ser Ala			
140	145	150	
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Ala Leu His Ser Pro Gln Glu Ser Pro Val Gly Lys Glu Asp Arg			
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Val Val Ser Pro Glu Lys Thr Met Asp Ile Phe Asn Glu Met Gln			
170	175	180	
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185	190	195	
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Pro Phe Glu Gln Ala Trp Glu Val Lys Asp Thr Tyr Glu Gly Ser			
200	205	210	
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Arg Asp Val Leu Ala Ala Arg Ala Asn Val Glu Ser Lys Val Asp			
215	220	225	
aga aaa tgc ttg gaa gat agc ctg gag caa aaa agt ctt ggg aag 855			
Arg Lys Cys Leu Glu Asp Ser Leu Glu Gln Lys Ser Leu Gly Lys			
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gat agt gaa ggc aga aat gag gat gct tct ttc ccc agt acc cca 900			
Asp Ser Glu Gly Arg Asn Glu Asp Ala Ser Phe Pro Ser Thr Pro			
245	250	255	
gaa cct gtg aag gac agc tcc aga gca tat att acc tgt gct tcc 945			
Glu Pro Val Lys Asp Ser Ser Arg Ala Tyr Ile Thr Cys Ala Ser			
260	265	270	
ttt acc tca gca acc gaa agc acc aca gca aac act ttc cct ttg 990			
Phe Thr Ser Ala Thr Glu Ser Thr Thr Ala Asn Thr Phe Pro Leu			
275	280	285	
tta gaa gat cat act tca gaa aat aaa aca gat gaa aaa aaa ata 1035			

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Leu Glu Asp His Thr Ser Glu Asn Lys Thr Asp Glu Lys Lys Ile
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Thr Ser Asn Pro Phe Leu Val Ala Val Gln Asp Ser Glu Ala Asp
320                               325                               330

tat gtt aca aca gat acc tta tca aag gtg act gag gca gca gtg 1170
Tyr Val Thr Thr Asp Thr Leu Ser Lys Val Thr Glu Ala Ala Val
335                               340                               345

tca aac atg cct gaa ggt ctg acg cca gat tta gtt cag gaa gca 1215
Ser Asn Met Pro Glu Gly Leu Thr Pro Asp Leu Val Gln Glu Ala
350                               355                               360

tgt gaa agt gaa ctg aat gaa gcc aca ggt aca aag att gct tat 1260
Cys Glu Ser Glu Leu Asn Glu Ala Thr Gly Thr Lys Ile Ala Tyr
365                               370                               375

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Glu Thr Lys Val Asp Leu Val Gln Thr Ser Glu Ala Ile Gln Glu
380                               385                               390

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395                               400                               405

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410                               415                               420

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425                               430                               435

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Pro Ser Val Ser Pro Leu Glu Ala Pro Pro Pro Val Ser Tyr Asp
440                               445                               450

agt ata aag ctt gag cct gaa aac ccc cca cca tat gaa gaa gcc 1530
Ser Ile Lys Leu Glu Pro Glu Asn Pro Pro Pro Tyr Glu Glu Ala
455                               460                               465

atg aat gta gca cta aaa gct ttg gga aca aag gaa gga ata aaa 1575
Met Asn Val Ala Leu Lys Ala Leu Gly Thr Lys Glu Gly Ile Lys
470                               475                               480

gag cct gaa agt ttt aat gca gct gtt cag gaa aca gaa gct cct 1620
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485                               490                               495

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Tyr Ile Ser Ile Ala Cys Asp Leu Ile Lys Glu Thr Lys Leu Ser
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Thr Glu Pro Ser Pro Asp Phe Ser Asn Tyr Ser Glu Ile Ala Lys
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 545 550 555

cct gaa gtc cca caa aca caa gag gag gct gtg atg ctc atg aag 1845  
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gag agt ctc act gaa gtg tct gag aca gta gcc cag cac aaa gag 1890  
 Glu Ser Leu Thr Glu Val Ser Glu Thr Val Ala Gln His Lys Glu  
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gag aga ctt agt gcc tca cct cag gag cta gga aag cca tat tta 1935  
 Glu Arg Leu Ser Ala Ser Pro Gln Glu Leu Gly Lys Pro Tyr Leu  
 590 595 600

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 605 610 615

aat gac att cca aca ttg acc aaa aag gag aaa att tct ttg caa 2025  
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 620 625 630

atg gaa gag ttt aat act gca att tat tca aat gat gac tta ctt 2070  
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 635 640 645

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 650 655 660

tca tct ccg att gag ata ata gat gaa ttt ccc acg ttt gtc agt 2160  
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 665 670 675

gct aaa gat gat tct cct aaa tta gcc aag gag tac act gat cta 2205  
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 680 685 690

gaa gta tcc gac aaa agt gaa att gct aat atc caa agc ggg gca 2250  
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 695 700 705

gat tca ttg cct tgc tta gaa ttg ccc tgt gac ctt tct ttc aag 2295  
 Asp Ser Leu Pro Cys Leu Glu Leu Pro Cys Asp Leu Ser Phe Lys  
 710 715 720

aat ata tat cct aaa gat gaa gta cat gtt tca gat gaa ttc tcc 2340  
 Asn Ile Tyr Pro Lys Asp Glu Val His Val Ser Asp Glu Phe Ser  
 725 730 735

gaa aat agg tcc agt gta tct aag gca tcc ata tct cct tca aat 2385  
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gtc tct gct ttg gaa cct cag aca gaa atg ggc agc ata gtt aaa 2430  
 Val Ser Ala Leu Glu Pro Gln Thr Glu Met Gly Ser Ile Val Lys  
 755 760 765

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 fragment and hexahistidine tag

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 <222> (85)...(120)  
 <223> Strep-tag II affinity tag

<220>  
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 <222> (121)...(2250)  
 <223> mature truncated Nogo-A

<220>  
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 <222> (2251)...(2271)  
 <223> hexahistidine tag affinity tag

<400> 15

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                           Met Lys Lys Thr Ala Ile Ala Ile  
                           -21 -20                          -15

gca gtg gca ctg gct ggt ttc gct acc. gta gcg cag gcc gct agc 90  
 Ala Val Ala Leu Ala Gly Phe Ala Thr Val Ala Gln Ala Ala Ser  
                           -10                          -5                          -1

tgg agc cac ccg cag ttc gaa aaa ggc gcc tct ttt aaa gaa cat 135  
 Trp Ser His Pro Gln Phe Glu Lys Gly Ala Ser Phe Lys Glu His  
                           5                          10                          15

gga tac ctt ggt aac tta tca gca gtg tca tcc tca gaa gga aca 180  
 Gly Tyr Leu Gly Asn Leu Ser Ala Val Ser Ser Ser Glu Gly Thr  
                           20                          25                          30

att gaa gaa act tta aat gaa gct tct aaa gag ttg cca gag agg 225  
 Ile Glu Glu Thr Leu Asn Glu Ala Ser Lys Glu Leu Pro Glu Arg  
                           35                          40                          45

gca aca aat cca ttt gta aat aga gat tta gca gaa ttt tca gaa 270

Ala Thr Asn Pro Phe Val Asn Arg Asp Leu Ala Glu Phe Ser Glu	50	55	60
tta gaa tat tca gaa atg gga tca tct ttt aaa ggc tcc cca aaa	65	70	75
Leu Glu Tyr Ser Glu Met Gly Ser Ser Phe Lys Gly Ser Pro Lys			
gga gag tca gcc ata tta gta gaa aac act aag gaa gaa gta att	80	85	90
Gly Glu Ser Ala Ile Leu Val Glu Asn Thr Lys Glu Glu Val Ile			
gtg agg agt aaa gac aaa gag gat tta gtt tgt agt gca gcc ctt	95	100	105
Val Arg Ser Lys Asp Lys Glu Asp Leu Val Cys Ser Ala Ala Leu			
cac agt cca caa gaa tca cct gtg ggt aaa gaa gac aga gtt gtg	110	115	120
His Ser Pro Gln Glu Ser Pro Val Gly Lys Glu Asp Arg Val Val			
tct cca gaa aag aca atg gac att ttt aat gaa atg cag atg tca	125	130	135
Ser Pro Glu Lys Thr Met Asp Ile Phe Asn Glu Met Gln Met Ser			
gta gta gca cct gtg agg gaa gag tat gca gac ttt aag cca ttt	140	145	150
Val Val Ala Pro Val Arg Glu Glu Tyr Ala Asp Phe Lys Pro Phe			
gaa caa gca tgg gaa gtg aaa gat act tat gag gga agt agg gat	155	160	165
Glu Gln Ala Trp Glu Val Lys Asp Thr Tyr Glu Gly Ser Arg Asp			
gtg ctg gct gct aga gct aat gtg gaa agt aaa gtg gac aga aaa	170	175	180
Val Leu Ala Ala Arg Ala Asn Val Glu Ser Lys Val Asp Arg Lys			
tgc ttg gaa gat agc ctg gag caa aaa agt ctt ggg aag gat agt	185	190	195
Cys Leu Glu Asp Ser Leu Glu Gln Lys Ser Leu Gly Lys Asp Ser			
gaa ggc aga aat gag gat gct tct ttc ccc agt acc cca gaa cct	200	205	210
Glu Gly Arg Asn Glu Asp Ala Ser Phe Pro Ser Thr Pro Glu Pro			
gtg aag gac agc tcc aga gca tat att acc tgt gct tcc ttt acc	215	220	225
Val Lys Asp Ser Ser Arg Ala Tyr Ile Thr Cys Ala Ser Phe Thr			
tca gca acc gaa agc acc aca gca aac act ttc cct ttg tta gaa	230	235	240
Ser Ala Thr Glu Ser Thr Thr Ala Asn Thr Phe Pro Leu Leu Glu			
gat cat act tca gaa aat aaa aca gat gaa aaa aaa ata gaa gaa	245	250	255
Asp His Thr Ser Glu Asn Lys Thr Asp Glu Lys Lys Ile Glu Glu			
agg aag gcc caa att ata aca gag aag act agc ccc aaa acg tca	260	265	270
Arg Lys Ala Gln Ile Ile Thr Glu Lys Thr Ser Pro Lys Thr Ser			
aat cct ttc ctt gta gca gta cag gat tct gag gca gat tat gtt	275	280	285
Asn Pro Phe Leu Val Ala Val Gln Asp Ser Glu Ala Asp Tyr Val			

aca aca gat acc tta tca aag gtg act gag gca gca gtg tca aac 990  
 Thr Thr Asp Thr Leu Ser Lys Val Thr Glu Ala Ala Val Ser Asn  
 290 295 300

atg cct gaa ggt ctg acg cca gat tta gtt cag gaa gca tgt gaa 1035  
 Met Pro Glu Gly Leu Thr Pro Asp Leu Val Gln Glu Ala Cys Glu  
 305 310 315

agt gaa ctg aat gaa gcc aca ggt aca aag att gct tat gaa aca 1080  
 Ser Glu Leu Asn Glu Ala Thr Gly Thr Lys Ile Ala Tyr Glu Thr  
 320 325 330

aaa gtg gac ttg gtc caa aca tca gaa gct ata caa gaa tca ctt 1125  
 Lys Val Asp Leu Val Gln Thr Ser Glu Ala Ile Gln Glu Ser Leu  
 335 340 345

tac ccc aca gca cag ctt tgc cca tca ttt gag gaa gct gaa gca 1170  
 Tyr Pro Thr Ala Gln Leu Cys Pro Ser Phe Glu Glu Ala Glu Ala  
 350 355 360

act ccg tca cca gtt ttg cct gat att gtt atg gaa gca cca tta 1215  
 Thr Pro Ser Pro Val Leu Pro Asp Ile Val Met Glu Ala Pro Leu  
 365 370 375

aat tct ctc ctt cca agc gct ggt gct tct gta gtg cag ccc agt 1260  
 Asn Ser Leu Leu Pro Ser Ala Gly Ala Ser Val Val Gln Pro Ser  
 380 385 390

gta tcc cca ctg gaa gca cct cct cca gtt agt tat gac agt ata 1305  
 Val Ser Pro Leu Glu Ala Pro Pro Pro Val Ser Tyr Asp Ser Ile  
 395 400 405

aag ctt gag cct gaa aac ccc cca cca tat gaa gaa gcc atg aat 1350  
 Lys Leu Glu Pro Glu Asn Pro Pro Pro Tyr Glu Glu Ala Met Asn  
 410 415 420

gta gca cta aaa gct ttg gga aca aag gaa gga ata aaa gag cct 1395  
 Val Ala Leu Lys Ala Leu Gly Thr Lys Glu Gly Ile Lys Glu Pro  
 425 430 435

gaa agt ttt aat gca gct gtt cag gaa aca gaa gct cct tat ata 1440  
 Glu Ser Phe Asn Ala Ala Val Gln Glu Thr Glu Ala Pro Tyr Ile  
 440 445 450

tcc att gcg tgt gat tta att aaa gaa aca aag ctc tcc act gag 1485  
 Ser Ile Ala Cys Asp Leu Ile Lys Glu Thr Lys Leu Ser Thr Glu  
 455 460 465

cca agt cca gat ttc tct aat tat tca gaa ata gca aaa ttc gag 1530  
 Pro Ser Pro Asp Phe Ser Asn Tyr Ser Glu Ile Ala Lys Phe Glu  
 470 475 480

aag tcg gtg ccc gaa cac gct gag cta gtg gag gat tcc tca cct 1575  
 Lys Ser Val Pro Glu His Ala Glu Leu Val Glu Asp Ser Ser Pro  
 485 490 495

gaa tct gaa cca gtt gac tta ttt agt gat gat tcg att cct gaa 1620  
 Glu Ser Glu Pro Val Asp Leu Phe Ser Asp Asp Ser Ile Pro Glu  
 500 505 510

gtc cca caa aca caa gag gag gct gtg atg ctc atg aag gag agt 1665  
 Val Pro Gln Thr Gln Glu Glu Ala Val Met Leu Met Lys Glu Ser  
 515 520 525

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ctc act gaa gtg tct gag aca gta gcc cag cac aaa gag gag aga 1710
Leu Thr Glu Val Ser Glu Thr Val Ala Gln His Lys Glu Glu Arg
      530                      535                      540

ctt agt gcc tca cct cag gag cta gga aag cca tat tta gag tct 1755
Leu Ser Ala Ser Pro Gln Glu Leu Gly Lys Pro Tyr Leu Glu Ser
      545                      550                      555

ttt cag ccc aat tta cat agt aca aaa gat gct gca tct aat gac 1800
Phe Gln Pro Asn Leu His Ser Thr Lys Asp Ala Ala Ser Asn Asp
      560                      565                      570

att cca aca ttg acc aaa aag gag aaa att tct ttg caa atg gaa 1845
Ile Pro Thr Leu Thr Lys Lys Glu Lys Ile Ser Leu Gln Met Glu
      575                      580                      585

gag ttt aat act gca att tat tca aat gat gac tta ctt tct tct 1890
Glu Phe Asn Thr Ala Ile Tyr Ser Asn Asp Asp Leu Leu Ser Ser
      590                      595                      600

aag gaa gac aaa ata aaa gaa agt gaa aca ttt tca gat tca tct 1935
Lys Glu Asp Lys Ile Lys Glu Ser Glu Thr Phe Ser Asp Ser Ser
      605                      610                      615

ccg att gag ata ata gat gaa ttt ccc acg ttt gtc agt gct aaa 1980
Pro Ile Glu Ile Ile Asp Glu Phe Pro Thr Phe Val Ser Ala Lys
      620                      625                      630

gat gat tct cct aaa tta gcc aag gag tac act gat cta gaa gta 2025
Asp Asp Ser Pro Lys Leu Ala Lys Glu Tyr Thr Asp Leu Glu Val
      635                      640                      645

tcc gac aaa agt gaa att gct aat atc caa agc ggg gca gat tca 2070
Ser Asp Lys Ser Glu Ile Ala Asn Ile Gln Ser Gly Ala Asp Ser
      650                      655                      660

ttg cct tgc tta gaa ttg ccc tgt gac ctt tct ttc aag aat ata 2115
Leu Pro Cys Leu Glu Leu Pro Cys Asp Leu Ser Phe Lys Asn Ile
      665                      670                      675

tat cct aaa gat gaa gta cat gtt tca gat gaa ttc tcc gaa aat 2160
Tyr Pro Lys Asp Glu Val His Val Ser Asp Glu Phe Ser Glu Asn
      680                      685                      690

agg tcc agt gta tct aag gca tcc ata tcg cct tca aat gtc tct 2205
Arg Ser Ser Val Ser Lys Ala Ser Ile Ser Pro Ser Asn Val Ser
      695                      700                      705

gct ttg gaa cct cag aca gaa atg ggc agc ata gtt aaa agc gct 2250
Ala Leu Glu Pro Gln Thr Glu Met Gly Ser Ile Val Lys Ser Ala
      710                      715                      720

cac cat cac cat cac cat taa taa gctt
His His His His His His End
      725

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2281

<210> 16  
<211> 777  
<212> PRT

<213> artificial sequence

**<220>**

<221> SIGNAL

 $\langle 222 \rangle \quad (-21) \dots (-1)$ 

**<220>**

<221> CHAIN

$\langle 222 \rangle$  (1) ... (777)

<223> fusion protein of truncated rat Nogo-A fragment and Strep-tag II

<220>

**<221>**

$\langle 222 \rangle \quad (1) \dots (767)$

<223> mature truncated Nogo-A

**<220>**

<221>

<222> (767) ... (777)

<223> Strep-tag II affinity tag

<400> 16

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Ala	Val	Ala	Leu -10	Ala	Gly	Phe	Ala	Thr -5	Val	Ala	Gln	Ala -1	Glu 1	Thr	
Ala	Leu	Pro 5	Ala	Ala	Ser	Glu	Pro 10	Val	Ile	Pro	Ser	Ser 15	Ala	Glu	
Leu	Phe	Lys 20	Ile	Met	Asp	Leu	Met 25	Glu	Gln	Pro	Gly	Asn 30	Thr	Val	
Ser	Ser	Gly 35	Gln	Glu	Asp	Phe	Pro 40	Ser	Val	Leu	Leu	Glu 45	Thr	Ala	
Ala	Ser	Leu 50	Pro	Ser	Leu	Ser	Pro 55	Leu	Ser	Thr	Val	Ser 60	Phe	Lys	
Glu	His	Gly 65	Tyr	Leu	Gly	Asn	Leu 70	Ser	Ala	Val	Ser	Ser 75	Ser	Glu	
Gly	Thr	Ile 80	Glu	Glu	Thr	Leu	Asn 85	Glu	Ala	Ser	Lys	Glu 90	Leu	Pro	
Glu	Arg	Ala 95	Thr	Asn	Pro	Phe	Val 100	Asn	Arg	Asp	Leu	Ala 105	Glu	Phe	
Ser	Glu	Leu 110	Glu	Tyr	Ser	Glu	Met 115	Gly	Ser	Ser	Phe	Lys 120	Gly	Ser	
Pro	Lys	Gly 125	Glu	Ser	Ala	Ile	Leu 130	Val	Glu	Asn	Thr	Lys 135	Glu	Glu	
Val	Ile	Val 140	Arg	Ser	Lys	Asp	Lys 145	Glu	Asp	Leu	Val	Cys 150	Ser	Ala	
Ala	Leu	His 155	Ser	Pro	Gln	Glu	Ser 160	Pro	Val	Gly	Lys	Glu 165	Asp	Arg	



Val	Val	Ser	Pro	Glu	Lys	Thr	Met	Asp	Ile	Phe	Asn	Glu	Met	Gln	170	175	180
Met	Ser	Val	Val	Ala	Pro	Val	Arg	Glu	Glu	Tyr	Ala	Asp	Phe	Lys	185	190	195
Pro	Phe	Glu	Gln	Ala	Trp	Glu	Val	Lys	Asp	Thr	Tyr	Glu	Gly	Ser	200	205	210
Arg	Asp	Val	Leu	Ala	Ala	Arg	Ala	Asn	Val	Glu	Ser	Lys	Val	Asp	215	220	225
Arg	Lys	Cys	Leu	Glu	Asp	Ser	Leu	Glu	Gln	Lys	Ser	Leu	Gly	Lys	230	235	240
Asp	Ser	Glu	Gly	Arg	Asn	Glu	Asp	Ala	Ser	Phe	Pro	Ser	Thr	Pro	245	250	255
Glu	Pro	Val	Lys	Asp	Ser	Ser	Arg	Ala	Tyr	Ile	Thr	Cys	Ala	Ser	260	265	270
Phe	Thr	Ser	Ala	Thr	Glu	Ser	Thr	Thr	Ala	Asn	Thr	Phe	Pro	Leu	275	280	285
Leu	Glu	Asp	His	Thr	Ser	Glu	Asn	Lys	Thr	Asp	Glu	Lys	Lys	Ile	290	295	300
Glu	Glu	Arg	Lys	Ala	Gln	Ile	Ile	Thr	Glu	Lys	Thr	Ser	Pro	Lys	305	310	315
Thr	Ser	Asn	Pro	Phe	Leu	Val	Ala	Val	Gln	Asp	Ser	Glu	Ala	Asp	320	325	330
Tyr	Val	Thr	Thr	Asp	Thr	Leu	Ser	Lys	Val	Thr	Glu	Ala	Ala	Val	335	340	345
Ser	Asn	Met	Pro	Glu	Gly	Leu	Thr	Pro	Asp	Leu	Val	Gln	Glu	Ala	350	355	360
Cys	Glu	Ser	Glu	Leu	Asn	Glu	Ala	Thr	Gly	Thr	Lys	Ile	Ala	Tyr	365	370	375
Glu	Thr	Lys	Val	Asp	Leu	Val	Gln	Thr	Ser	Glu	Ala	Ile	Gln	Glu	380	385	390
Ser	Leu	Tyr	Pro	Thr	Ala	Gln	Leu	Cys	Pro	Ser	Phe	Glu	Glu	Ala	395	400	405
Glu	Ala	Thr	Pro	Ser	Pro	Val	Leu	Pro	Asp	Ile	Val	Met	Glu	Ala	410	415	420
Pro	Leu	Asn	Ser	Leu	Leu	Pro	Ser	Ala	Gly	Ala	Ser	Val	Val	Gln	425	430	435
Pro	Ser	Val	Ser	Pro	Leu	Glu	Ala	Pro	Pro	Pro	Val	Ser	Tyr	Asp	440	445	450
Ser	Ile	Lys	Leu	Glu	Pro	Glu	Asn	Pro	Pro	Pro	Tyr	Glu	Glu	Ala	455	460	465
Met	Asn	Val	Ala	Leu	Lys	Ala	Leu	Gly	Thr	Lys	Glu	Gly	Ile	Lys	470	475	480

Glu	Pro	Glu	Ser	Phe	Asn	Ala	Ala	Val	Gln	Glu	Thr	Glu	Ala	Pro
	485						490					495		
Tyr	Ile	Ser	Ile	Ala	Cys	Asp	Leu	Ile	Lys	Glu	Thr	Lys	Leu	Ser
	500						505					510		
Thr	Glu	Pro	Ser	Pro	Asp	Phe	Ser	Asn	Tyr	Ser	Glu	Ile	Ala	Lys
	515						520					525		
Phe	Glu	Lys	Ser	Val	Pro	Glu	His	Ala	Glu	Leu	Val	Glu	Asp	Ser
	530						535					540		
Ser	Pro	Glu	Ser	Glu	Pro	Val	Asp	Leu	Phe	Ser	Asp	Asp	Ser	Ile
	545						550					555		
Pro	Glu	Val	Pro	Gln	Thr	Gln	Glu	Glu	Ala	Val	Met	Leu	Met	Lys
	560						565					570		
Glu	Ser	Leu	Thr	Glu	Val	Ser	Glu	Thr	Val	Ala	Gln	His	Lys	Glu
	575						580					585		
Glu	Arg	Leu	Ser	Ala	Ser	Pro	Gln	Glu	Leu	Gly	Lys	Pro	Tyr	Leu
	590						595					600		
Glu	Ser	Phe	Gln	Pro	Asn	Leu	His	Ser	Thr	Lys	Asp	Ala	Ala	Ser
	605						610					615		
Asn	Asp	Ile	Pro	Thr	Leu	Thr	Lys	Lys	Glu	Lys	Ile	Ser	Leu	Gln
	620						625					630		
Met	Glu	Glu	Phe	Asn	Thr	Ala	Ile	Tyr	Ser	Asn	Asp	Asp	Leu	Leu
	635						640					645		
Ser	Ser	Lys	Glu	Asp	Lys	Ile	Lys	Glu	Ser	Glu	Thr	Phe	Ser	Asp
	650						655					660		
Ser	Ser	Pro	Ile	Glu	Ile	Ile	Asp	Glu	Phe	Pro	Thr	Phe	Val	Ser
	665						670					675		
Ala	Lys	Asp	Asp	Ser	Pro	Lys	Leu	Ala	Lys	Glu	Tyr	Thr	Asp	Leu
	680						685					690		
Glu	Val	Ser	Asp	Lys	Ser	Glu	Ile	Ala	Asn	Ile	Gln	Ser	Gly	Ala
	695						700					705		
Asp	Ser	Leu	Pro	Cys	Leu	Glu	Leu	Pro	Cys	Asp	Leu	Ser	Phe	Lys
	710						715					720		
Asn	Ile	Tyr	Pro	Lys	Asp	Glu	Val	His	Val	Ser	Asp	Glu	Phe	Ser
	725						730					735		
Glu	Asn	Arg	Ser	Ser	Val	Ser	Lys	Ala	Ser	Ile	Ser	Pro	Ser	Asn
	740						745					750		
Val	Ser	Ala	Leu	Glu	Pro	Gln	Thr	Glu	Met	Gly	Ser	Ile	Val	Lys
	755						760					765		
Ser	Ala	Trp	Arg	His	Pro	Gln	Phe	Gly	Gly					
	770						775							

							Met -21	Lys -20	Lys	Thr	Ala	Ile	Ala -15	Ile	
Ala	Val	Ala	Leu -10	Ala	Gly	Phe	Ala	Thr -5	Val	Ala	Gln	Ala -1	Ser 1	Phe	
Lys	Glu	His 5	Gly	Tyr	Leu	Gly	Asn 10	Leu	Ser	Ala	Val	Ser 15	Ser	Ser	
Glu	Gly	Thr 20	Ile	Glu	Glu	Thr	Leu 25	Asn	Glu	Ala	Ser	Lys 30	Glu	Leu	
Pro	Glu	Arg 35	Ala	Thr	Asn	Pro	Phe 40	Val	Asn	Arg	Asp	Leu 45	Ala	Glu	
Phe	Ser	Glu 50	Leu	Glu	Tyr	Ser	Glu 55	Met	Gly	Ser	Ser	Phe 60	Lys	Gly	
Ser	Pro	Lys 65	Gly	Glu	Ser	Ala	Ile 70	Leu	Val	Glu	Asn	Thr 75	Lys	Glu	
Glu	Val	Ile 80	Val	Arg	Ser	Lys	Asp 85	Lys	Glu	Asp	Leu	Val 90	Cys	Ser	
Ala	Ala	Leu 95	His	Ser	Pro	Gln	Glu 100	Ser	Pro	Val	Gly	Lys 105	Glu	Asp	
Arg	Val	Val 110	Ser	Pro	Glu	Lys	Thr 115	Met	Asp	Ile	Phe	Asn 120	Glu	Met	
Gln	Met	Ser 125	Val	Val	Ala	Pro	Val 130	Arg	Glu	Glu	Tyr	Ala 135	Asp	Phe	
Lys	Pro	Phe 140	Glu	Gln	Ala	Trp	Glu 145	Val	Lys	Asp	Thr	Tyr 150	Glu	Gly	

Ser Arg Asp Val Leu Ala Ala Arg Ala Asn Val Glu Ser Lys Val  
 155 160 165  
 Asp Arg Lys Cys Leu Glu Asp Ser Leu Glu Gln Lys Ser Leu Gly  
 170 175 180  
 Lys Asp Ser Glu Gly Arg Asn Glu Asp Ala Ser Phe Pro Ser Thr  
 185 190 195  
 Pro Glu Pro Val Lys Asp Ser Ser Arg Ala Tyr Ile Thr Cys Ala  
 200 205 210  
 Ser Phe Thr Ser Ala Thr Glu Ser Thr Thr Ala Asn Thr Phe Pro  
 215 220 225  
 Leu Leu Glu Asp His Thr Ser Glu Asn Lys Thr Asp Glu Lys Lys  
 230 235 240  
 Ile Glu Glu Arg Lys Ala Gln Ile Ile Thr Glu Lys Thr Ser Pro  
 245 250 255  
 Lys Thr Ser Asn Pro Phe Leu Val Ala Val Gln Asp Ser Glu Ala  
 260 265 270  
 Asp Tyr Val Thr Thr Asp Thr Leu Ser Lys Val Thr Glu Ala Ala  
 275 280 285  
 Val Ser Asn Met Pro Glu Gly Leu Thr Pro Asp Leu Val Gln Glu  
 290 295 300  
 Ala Cys Glu Ser Glu Leu Asn Glu Ala Thr Gly Thr Lys Ile Ala  
 305 310 315  
 Tyr Glu Thr Lys Val Asp Leu Val Gln Thr Ser Glu Ala Ile Gln  
 320 325 330  
 Glu Ser Leu Tyr Pro Thr Ala Gln Leu Cys Pro Ser Phe Glu Glu  
 335 340 345  
 Ala Glu Ala Thr Pro Ser Pro Val Leu Pro Asp Ile Val Met Glu  
 350 355 360  
 Ala Pro Leu Asn Ser Leu Leu Pro Ser Ala Gly Ala Ser Val Val  
 365 370 375  
 Gln Pro Ser Val Ser Pro Leu Glu Ala Pro Pro Pro Val Ser Tyr  
 380 385 390  
 Asp Ser Ile Lys Leu Glu Pro Glu Asn Pro Pro Pro Tyr Glu Glu  
 395 400 405  
 Ala Met Asn Val Ala Leu Lys Ala Leu Gly Thr Lys Glu Gly Ile  
 410 415 420  
 Lys Glu Pro Glu Ser Phe Asn Ala Ala Val Gln Glu Thr Glu Ala  
 425 430 435  
 Pro Tyr Ile Ser Ile Ala Cys Asp Leu Ile Lys Glu Thr Lys Leu  
 440 445 450  
 Ser Thr Glu Pro Ser Pro Asp Phe Ser Asn Tyr Ser Glu Ile Ala  
 455 460 465

Lys Phe Glu	Lys Ser Val	Pro Glu His Ala	Glu Leu Val	Glu Asp
470		475	480	
Ser Ser Pro	Glu Ser Glu	Pro Val Asp Leu	Phe Ser Asp	Asp Ser
485		490	495	
Ile Pro Glu	Val Pro Gln	Thr Gln Glu Glu	Ala Val Met	Leu Met
500		505	510	
Lys Glu Ser	Leu Thr Glu	Val Ser Glu Thr	Val Ala Gln	His Lys
515		520	525	
Glu Glu Arg	Leu Ser Ala	Ser Pro Gln Glu	Leu Gly Lys	Pro Tyr
530		535	540	
Leu Glu Ser	Phe Gln Pro	Asn Leu His Ser	Thr Lys Asp	Ala Ala
545		550	555	
Ser Asn Asp	Ile Pro Thr	Leu Thr Lys Lys	Glu Lys Ile	Ser Leu
560		565	570	
Gln Met Glu	Glu Phe Asn	Thr Ala Ile Tyr	Ser Asn Asp	Asp Leu
575		580	585	
Leu Ser Ser	Lys Glu Asp	Lys Ile Lys Glu	Ser Glu Thr	Phe Ser
590		595	600	
Asp Ser Ser	Pro Ile Glu	Ile Ile Asp Glu	Phe Pro Thr	Phe Val
605		610	615	
Ser Ala Lys	Asp Asp Ser	Pro Lys Leu Ala	Lys Glu Tyr	Thr Asp
620		625	630	
Leu Glu Val	Ser Asp Lys	Ser Glu Ile Ala	Asn Ile Gln	Ser Gly
635		640	645	
Ala Asp Ser	Leu Pro Cys	Leu Glu Leu Pro	Cys Asp Leu	Ser Phe
650		655	660	
Lys Asn Ile	Tyr Pro Lys	Asp Glu Val His	Val Ser Asp	Glu Phe
665		670	675	
Ser Glu Asn	Arg Ser Ser	Val Ser Lys Ala	Ser Ile Ser	Pro Ser
680		685	690	
Asn Val Ser	Ala Leu Glu	Pro Gln Thr Glu	Met Gly Ser	Ile Val
695		700	705	
Lys Ser Ala	Trp Arg His	Pro Gln Phe Gly	Gly	
710		715		